

CLAIM AMENDMENTS

The following listing of claims will replace all prior claim listings in this application.

Additions are indicated by underlining. Deletions are indicated by strikethrough.

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)
13. (Cancelled)
14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Cancelled)
18. (Cancelled)

19. (Currently Amended) In combination, a light incident surface of a photovoltaic cell and a current collector structure for collecting current from said light incident surface, said current collector structure comprising,
- a sheetlike substrate having a first substrate surface, at least a portion of said first substrate surface comprising being formed by a polymeric adhesive,
 - a first material ~~overlaying a portion of~~ positioned over said first substrate surface, said first material comprising a polymer and ~~further characterized as~~ being selectively positioned over said first substrate surface in a first trace pattern,
 - a second material ~~overlaying~~ covering said first trace pattern, said second material being electrically conductive, ~~said second material~~ and forming a second pattern characterized as substantially replicating at least a portion of said first trace pattern,
 - said combination characterized by having said first substrate surface overlaying said light incident surface such that said first substrate surface and said light incident surface face each other,
 - said combination further characterized by having at least a portion of said second material positioned between said first material and said light incident surface.
20. (Cancelled)
21. (Previously presented) The combination of claim 19 wherein said photovoltaic cell comprises a thin film semiconductor structure.

22. (Previously presented) The combination of claim 21 wherein said thin film semiconductor structure is positioned on a self-supporting metal based foil.
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Cancelled)
27. (Currently amended) The combination of claim 19 wherein said portion ~~portions~~ of said first substrate surface ~~are~~ is adhesively bonded in direct contact to said light incident surface.
28. (Cancelled)
29. (Previously presented) The combination of claim 19 wherein said sheetlike substrate comprises a material containing silicon.
30. (Cancelled)
31. (Previously presented) The combination of claim 19 wherein said second pattern comprises multiple fingers joined by a buss, and wherein said second pattern is further characterized as comprising a monolithic deposit of conductive material extending to form portions of both said multiple fingers and said buss.
32. (Previously presented) The combination of claim 19 wherein said first material comprises printed material.
33. (Previously presented) The combination of claim 19 wherein said first material comprises a material component characterized as having the ability to assist deposition of metal.

34. (Previously presented) The combination of claim 19 wherein said first material comprises an electrically conductive polymer consisting of a homogeneous mixture of conductive particles in a polymeric matrix.
35. (Previously presented) The combination of claim 19 wherein said first material comprises a directly electroplateable resin (DER).
36. (Currently ammended) The combination of claim 33 wherein said first material component comprises a seed catalyst suitable for initiating chemical metal deposition.
37. (Previously presented) The combination of claim 19 wherein said second material comprises an electroplated metal or metal-based alloy.
38. (Previously presented) The combination of claim 37 wherein said electroplated metal or metal-based alloy comprises copper.
39. (Previously presented) The combination of claim 19 wherein said second material comprises a low melting point metal based material.
40. (Previously presented) The combination of claim 39 wherein said second material comprises indium.
41. (Previously presented) In combination, a light incident surface of a photovoltaic cell having dimensions being defined by peripheral edges of said surface and a current collector structure, said current collector structure comprising,
- an optically transparent or translucent base substrate and,
 - a layered structure comprising a first layer positioned over a first surface of said base substrate and a second layer overlaying said first layer,

- said first layer having structure defining a pattern of one or more lines extending over said base substrate,
- said first layer comprising a polymer and characterized as having a substantially homogeneous cross sectional composition,
- said second layer comprising a conductive material,

said combination further characterized as having a first portion of said layered structure extending over said light incident surface such that said second layer is positioned between said first layer and said light incident surface of a photovoltaic cell.

42. (Cancelled)

43. (Cancelled)

44. (Currently amended) In combination, a light incident surface of a photovoltaic cell and a current collector structure,

- said light incident surface characterized as being substantially planar and having a substantially uniform surface composition,
- said current collector structure comprising one or more traces positioned ~~on~~ over a sheetlike substrate, said traces comprising a first homogeneous material comprising a polymer and having the ability to assist metal deposition, said first material having a first surface and an oppositely facing second surface, said first surface facing toward said substrate and being devoid of metal coating and said second surface being coated with a metal deposit,
- said combination characterized as having said one or more traces overlaying and in electrical communication with said light incident surface.

45. (Cancelled)
46. (Previously presented) The combination of claim 31 wherein said monolithic deposit of conductive material is an electrodeposit.
47. (Currently amended) The combination of claim 19 wherein said first material comprises a polymeric material functioning to ~~adhesively~~ join said electrically conductive material to said first substrate surface.
48. (Currently amended) The combination of claim 41 wherein said light incident surface is contained within said peripheral edges and further characterized as having a second portion of said layered structure extending outside a said peripheral edge of said light incident surface.
49. (Previously presented) The combination of claim 44 wherein said metal deposit comprises an electrodeposit.
50. (Previously presented) The combination of claim 44 wherein said first material is printed material.
51. (Previously presented) The combination of claim 44 wherein said first and second surfaces are substantially planar.
52. (Previously presented) The combination of claim 19 wherein said first material comprises a material blend of polymer and silver.
53. (Previously presented) The combination of claim 19 wherein said first material comprises carbon black.
54. (Previously presented) The combination of claim 19 wherein said second material is in direct contact with said light incident surface.

55. (Previously presented) The combination of claim 29 wherein said silicon containing material is in the form of a barrier layer.
56. (Currently amended) The combination of claim 31 wherein said light incident surface ~~has dimensions defined by~~ is contained within peripheral edges of said light incident surface, and further characterized as having a portion of said buss extending positioned outside a said peripheral edge to serve as a an electrical contact surface ~~for connection to an additional conductive surface~~.
57. (Previously presented) The combination of claim 19 wherein said first material is in direct contact with said first substrate surface.
58. (Previously presented) The combination of claim 19 wherein said first material is not in direct contact with said first substrate surface.
59. (Previously presented) The combination of claim 19 wherein said first and second materials are in direct contact.
60. (Previously presented) The combination of claim 19 wherein said first and second materials are not in direct contact.
61. (Currently amended) The combination of claim 41 wherein either of said first or second layers is characterized as comprising material having the ability to assist in deposition of ~~said~~ conductive material.
62. (Currently amended) The combination of claim 61 ~~wherein said conductive material comprises~~ comprising electroplated metal.